

WATERPROOF BAG MEANS

BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates to a waterproof bag means and in particular to waterproof bags or pouches for campers, mountain climber, etc., such as rucksacks or backpacks, knapsacks and other types of bags for outdoor activities.

Ideally, a combination of three functional properties, i.e., lightness in weight, sufficient waterproofness and also proper air-permeability, are essential for such a bag means, however, it has been impossible to combine these mutually inconsistent properties in a bag. If one of these properties is improved, the remainder would be deteriorated. For example, waterproofness not only affects lightness in weight and air-permeability but also causes the following problems which have not been solved yet:

- (1) a highly waterproofed material increases weight and production cost thereof;
- (2) waterproofness of materials to be used for a bag means is not sufficiently improved compared with that of cloths, while durability is lower;
- (3) when a bag means is exposed to heavy rain, etc., water tends to soak thereinto even if the bag is highly waterproofed;
- (4) the thus soaked water is not easily drained dry; and
- (5) a seam sealing treatment of bag means further increases the production cost.

SUMMARY OF THE INVENTION

According to the present invention, there is provided

completely waterproofed bag means comprising a main body made of a mesh material as a whole except an opening portion thereof and a completely waterproofed inner bag to be put in the main body detachably.

A smooth outer cover may be detachably put on the outside of the main body.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is an exploded perspective view of a rucksack according to the present invention.

Fig. 2 is an exploded perspective view of a pouch according to the present invention.

Fig. 3 is an exploded perspective view of a handbag according to the present invention.

#### DETAILED DESCRIPTION OF THE INVENTION

There may be used any kind of conventional materials as a mesh material for the present bag means, although less water-absorbing one is preferable.

An inner bag to be put in a main body contributes to weight-saving of the present bag means as a whole, because only waterproofness might be considered rather regardless of durability thereof.

The present bag means makes it possible to keep various kinds of things independently under a dry condition in the inner bag and an air-permeable condition between the mesh main body and the inner bag, respectively. Due to the above mentioned structure of the present invention, both of improved waterproofness and air-permeability can be secured simultaneously. Similarly, due to this structure, weight of the bag means as a whole can be saved.

As the inner bag prevents soaking from water from outside environment almost completely, the bag can be used continuously without draining.

Further, things put in the space between the mesh main body and the inner bag can be checked easily from outside and, in addition, willingly dried, if necessary.

An outer cover may also be put on the mesh main body in bush, etc. so as to protect the mesh.

#### EMBODIMENTS

Referring now to the drawings, the present invention will be detailed.

Fig. 1 is a perspective view of a rucksack according to the present invention, in which numerals 1, 2 and 3 designate a main body, a lid portion and an inner bag, respectively, while numerals 4 and 5 designate catch.

Except the lid portion 2 for getting things in and out, the main body 1 is made of a nylon mesh material. The inner bag 3 is made of waterproofed nylon taffeta for rainwear, while seam thereof is sealed by means of seam tape to enhance waterproofness.

An opening portion of the inner bag 3 is folded to seal the bag 3 by means of a seamed nylon tack 6.

The main body 1 and an upper portion of the inner bag 3 are joined by means of loop clutches 4 and hooks 5 so as to fit the bag 3 inside of the main body 1 firmly.

The remainder structure of the present bag means is essentially similar to conventional rucksacks.

Fig. 2 is a perspective view of a waist pouch. Basic structure of a main body is the same as that of the rucksack shown

in Fig. 1.

An inner bag 3 is made of the same material used for the above mentioned rucksack, which opening portion is closed tight by means of a closing string 7, then folded back and finally tightened by means of a magic taped belt 8.

The inner bag 3 is fit inside of the main body 1 firmly by means of hooks 5 similarly as described above.

Numeral 9 designates a nylon outer cover. The outer cover 9 is formed to just fit on the main body so as to cover the mesh completely, thereby hooks 10 being used to fix the cover 9 on the body 1.

Fig. 3 is a perspective view of a handbag. Basic structure of the handbag is the same as that of the rucksack shown in Fig. 1, except that the lid portion is omitted and double top handles are formed.

An inner bag 3 is made of the same material as described above and formed as a box shape to fit into a main body 1, while an opening portion thereof is closed tightly by means of seamed nylon tacks 11 and a slide fastener 12.

The inner body 3 is fixed inside of the main body 1 by means of hooks 4.